H.264 4/8/16 Channel DVR
Quick Start Guide

Products: BLK-DH200400D, BLK-DH200800D, BLK-DH201600D

PLEASE READ THIS GUIDE BEFORE USING YOUR RECORDER, and always follow the instructions for safety and proper use. Save this guide for future reference.

BLK-D20xx00D_RQ
9/2/11
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Specifications*

ITEM			BLK-DH200400D	BLK-DH200800D	BLK-DH201600D
Video	Input	Channel, Input Level	4/8/16 channel composite video, 1.0 Vp-p, 75Ω		
	Output	Main Monitor Output	1 VGA (1280 x 1024 @ 60Hz),		
		Spot	2 (Event, Live)		
Audio	Input & Output		4 CH line input & 1 CH line output		
	Audio CODEC		G.711 (ADPCM)		
Alarm	Sensor Input		4ch (NC/NO selectable)		
	Alarm Output		1 Alarm out by Sensor, Motion and Video Loss		
Record	Compression		H.264		
	Multi-operation		QUADPLEX (Playback/Record/Network/Backup)		
	Resolution	D1	120 fps	120 fps	120 fps
		Half D1	120 fps	240 fps	240 fps
		CIF	120 fps	240 fps	480 fps
	Recording quality grade		NETWORK, STANDARD, HIGH, SUPERIOR, ULTRA		
	Recording Mode		Continuous / Schedule / Motion/ Sensor/ Manual		
	Pre & Post Recording		Yes		
Display	Frame rate (/Sec)		30 fps/channel, 60 fields		
Playback	Multi-Decoding		1, 4, 8, 16		
Storage	HDD	Capacity of 1 HDD	2TB		
		Internal HDD	1		
	E-SATA Port		1		
	USB Port		2 (1 front, 1 rear)		
	Backup	USB flash drive	Video and still image		
		Network	Video and still image		
User I/F	Input method		Front button, remote control, mouse, keyboard controller		
Serial port	Console		1 RS-232C		
	PTZ and DVR keyboard control		1 RS-485		
	Termination		Yes		
Network	Dynamic DNS		Yes (free DDNS)		
	Dual encoding for network streaming		CIF 120 fps/100 fps		
Network Access	Web viewer (1:1)		Live, Search, Backup, PTZF Cam Control, Remote Setup		
	Single site monitoring system: UMS Single Client (1:1)		Live, Search, Backup, PTZF Cam Control, Remote Setup		
	Multi-sites monitoring system: UMS Multi Client (1:n)		Live, Search, Backup, PTZF Cam Control, Remote Setup		
Features	DLS (Day Light Saving) & NTP		Yes		
	Internal Beep		By Alarm, Motion, Video Loss, HDD error		
	Multi-Language		Yes (more than 13 languages)		
	3G mobile smartphone viewer		Yes		
Power	Power Supply Voltage		DC 12V 5A		
Operating temperature			41°F – 104°F (5°C – 40°C)		
Storage temperature			14°F – 122°F (-10°C – +50°C)		
Weight	Unit Weight / Gross weight		9.04 lbs. / 13.67 lbs. (4.1Kgs / 6.2Kgs)		
Dimension	W x H x D		15.0" x 13.4" x 2.83" (380mm x 340mm x 72mm)		
DVD RW drive disk compatibility			CD-R/W, DVD-R/W		

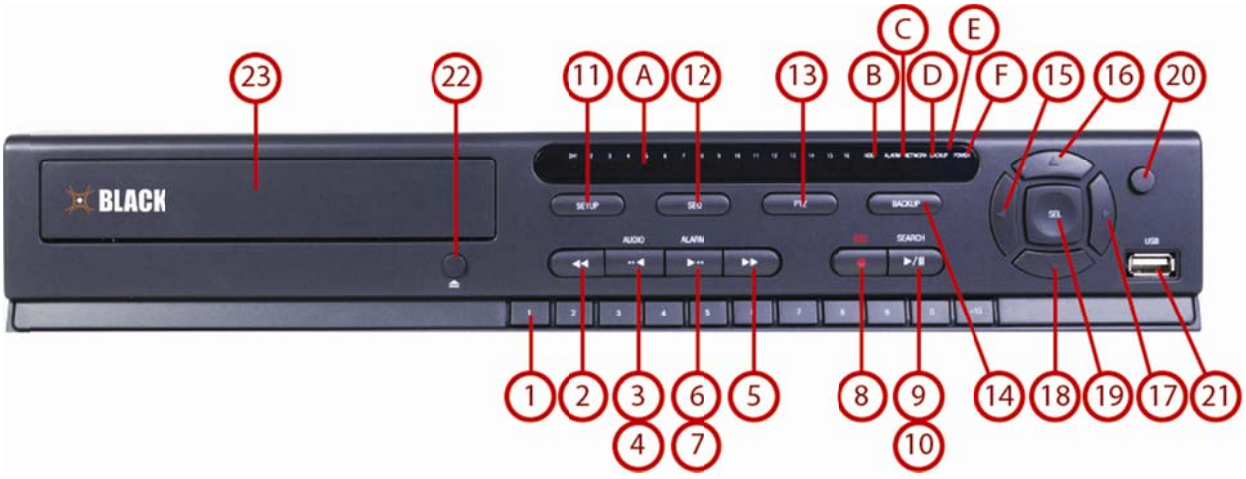
* Specifications and exterior design are subject to change without notice.

Product Components

The package contains the DVR unit and the components shown below.

DVR unit	
Software CD (with user manual) / Quick Start Guide	
HDD mounting screws (4 screws)	
Adaptor (DC 12V 5A) and power cable	
Mouse	
Remote control and batteries	
HDD mounting bracket and Screws (1 set)	
HDD Data Power Cable (1)	

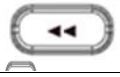
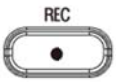
Front Panel



Front Panel LEDs

NO.	Name	Description
A	**CH1~16**	Indicates that the channel is being recorded.
B	**HDD**	Indicates that the system is accessing the hard disk.
C	**ALARM**	Indicates that sensor(s) is/are triggered or motion is detected.
D	**NETWORK**	Indicates that a network client is connected
E	**BACKUP**	Indicates that a USB or DVD-RW device contains stored data
F	**POWER**	Indicating that the system is switched on.

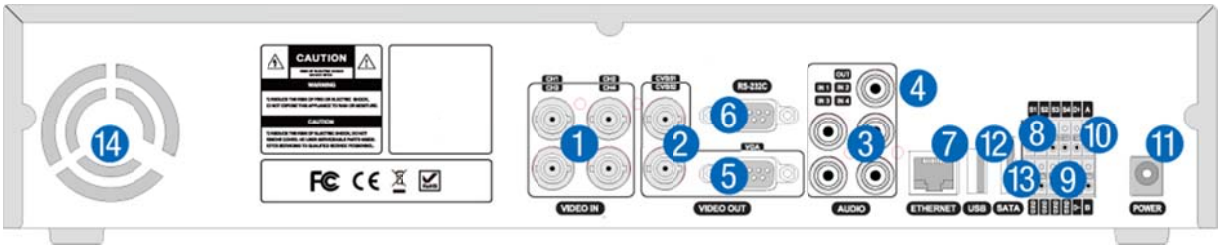
Front Panel Buttons

No.	Name	Description
1		Channel keys. For channel 10, press the 0 key. For channel 11, press the +10 and 1 key. For channel 16, press the +10 and 6 key.
2		In playback mode, press to rewind the recording. Press again to increase the rewind speed.
3		Press to select an audio mode: MUTE – Mute all 4 channels. SINGLE - Highlighted channel only. MIX - Mix all 4 channels.
4		Jump/step backward. In playback mode, the playback position moves 60 seconds backward.
5		In playback mode, press to fast forward the recording. Press again to increase the fast forward speed.
6		Press to enable/disable ALARM operation.
7		Jump/step forward. In playback mode, the playback position moves 60 seconds forward.
8		Press to start or stop manual recording.
9		In live display mode, press to open the SEARCH menu.
10		In playback mode, press to play/pause the footage.
11		Press to open the SETUP menu.
12		Enable/disable the automatic sequence of display of channels in full screen, quad, 9-split display mode.
13		Press to control Pan/Tilt/Zoom operations.
14		Press to capture video in jpeg format in live or playback mode.
15	◀ (**LEFT**)	Press to move left or to change the values in Setup mode. It is also used as the number 4 when entering password.
16	▲ (**UP**)	Press to move up the menu in Setup mode. It is also used as the number 1 when entering password.
17	▶ (**RIGHT**)	Press to move right or to change the values in Setup mode. It is also used as the number 2 when entering password.
18	▼ (**DOWN**)	Press to move down the menu in Setup mode. It is also used as the number 3 when entering password.
19		Press to select desired menu item or to store the setup value.
20		Press for temporary storage of the changed value or to return to the previous menu screen.

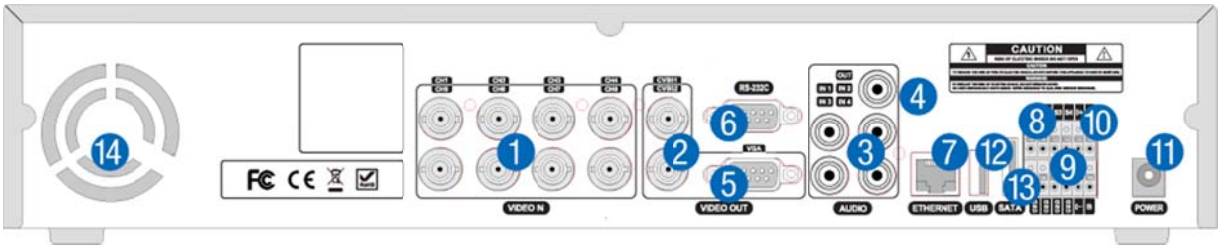
No.	Name	Description
21	**USB port**	To save a snapshot image or video clip on a USB flash drive, or upgrade firmware with a USB flash drive, first connect the USB flash drive to the USB port.
22	**OPEN/CLOSE**	Press to open or close the disk tray.
23	**DVD drive**	To save video, insert a CD-R/DVD-R

Rear Panel

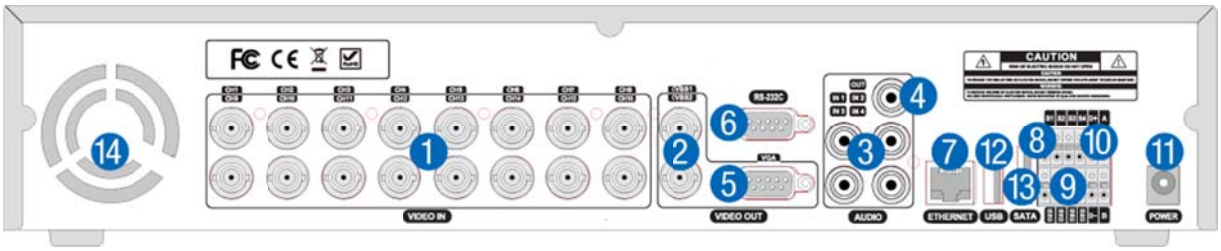
BLK-DH200400D DVR



BLK-DH200800D DVR



BLK-DH201600D DVR



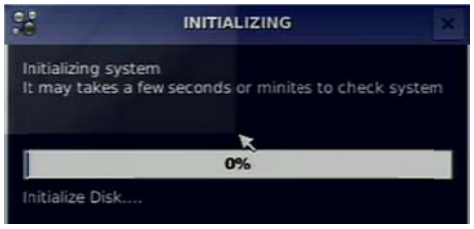
Rear Panel Connectors

No.	Label	Definition
1	**VIDEO IN**	Video input terminals
2	**CVBS OUT**	Spot out terminal. Spot out 1: Live view screen. Spot out 2: One channel screen with an event image.
3	**AUDIO IN**	Four connectors for audio input.
4	**AUDIO OUT**	One connector for audio output.
5	**VGA**	VGA (Video Graphics Array) output terminal. Connects to the PC VGA monitor.
6	**RS-232C**	For engineering use only.
7	**ETHERNET**	Network terminal
8	**SENSOR IN**	4 connectors for sensor device connection.
9	**ALARM OUT**	1 connector for alarm device connection. Provides simple On/Off switching by using relay. (A, B)
10	**RS-485**	RS-485 control terminal. (D+, D-)
11	**POWER**	DC12V
12	**USB**	USB port
13	**SATA**	External SATA port
14	**Cooling fan**	

System Installation and Setup

The following steps include the general procedure for installing and setting up your system. For specific instructions on performing any of these steps for the DVR, refer to the user manual provided on the CD with your system.

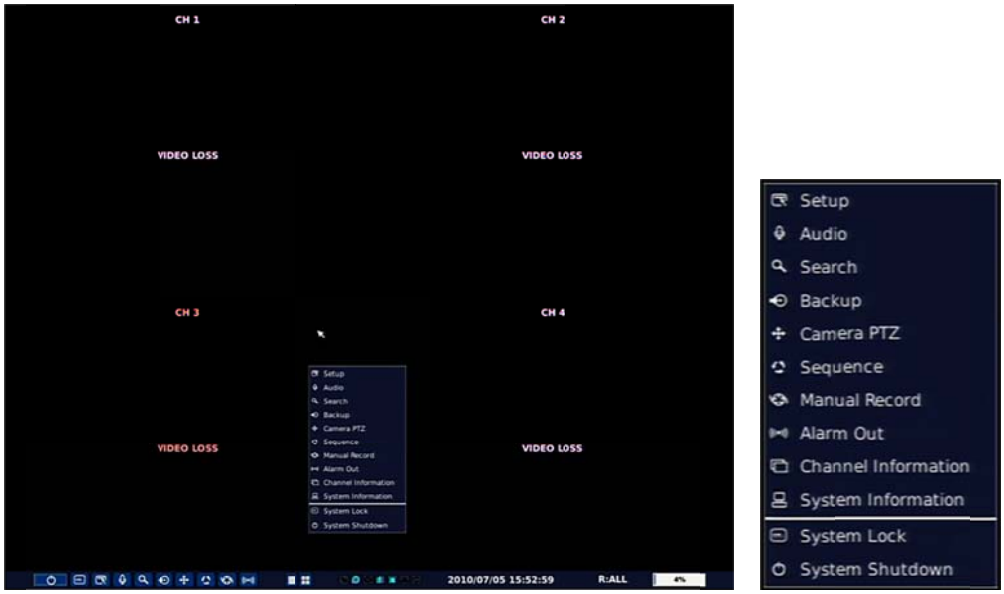
1. Plan your entire installation carefully, considering:
    - Position of the cameras to effectively cover your surveillance targets. Avoid locations and orientations where bright light might shine on or reflect onto the camera lens.
    - Security of the camera, and security of the cabling to the DVR. Is it easy for an intruder to disable the cameras?
    - Location of the DVR. Is it in a secure location? Is the temperature and humidity acceptable?
2. Install your cameras in accordance with the manufacturer's instructions.
3. Connect the video/audio and power extension cables to the cameras, and route them to the location of the DVR. Note that the video extension cables are usually different at each end; the end with the male power connector attaches to the camera drop cable, the end with the female power connector attaches to the power source and DVR.
4. Place the DVR on a clean, flat surface. Do not apply power to the DVR at this time.
    - Plug the USB mouse to the USB port on the DVR.
    - Connect a monitor to the VGA connector on the back of the DVR.
5. Connect the video extension cable from each camera to a video port on the back of your DVR.
    - If the camera location has a microphone, also attach the audio cable to an audio input connector on the back of the DVR.
6. Attach the power extension cable to the cameras to the recommended power source to power them on.
7. Power on the DVR.
    - Connect the power adapter to the DC12V power connector on the back of the DVR.
    - Power on the monitor.
    - Connect the power cable to the power adapter and to a standard 120 VAC outlet. When the DVR is powering on, an initialization window will appear.



8. When the first WELCOME window opens, use the mouse to open the dropdown menu and select the language you prefer to use, then click **Next**. NOTE: You can also change the language setting through the setup menus.

9. In the second WELCOME window, use the mouse to open the dropdown menus and select the date and time. When the correct date and time is shown, click **Next**. NOTE: The date and time setup in the DVR is used to timestamp recorded video. It is very important that this be set correctly if video recordings are used as evidence.

10. When the main screen opens, you should see a video image from each camera. Use this image to refine the manual settings of the camera. These settings include the camera direction, and may include focus, zoom, and other settings.
11. Right click the mouse anywhere on the DVR screen, or press the **SETUP** button on the front panel to enter the Setup menu. In the pop-up window, click **Setup**.



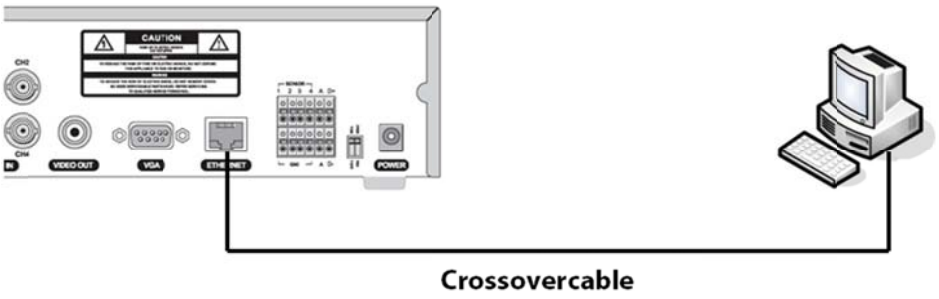
12. In the login window, click the virtual keyboard button to open the keyboard window. Use the keyboard to click in the default **ADMIN** password, "**1111**", then click **OK**. In the LOGIN window, click **OK** again to open the DVR **Setup** menus.

Configure the SETUP menus to customize the DVR settings for your system. Refer to the user manual included on the CD for more information about DVR Setup and system configuration settings.

Network Connections

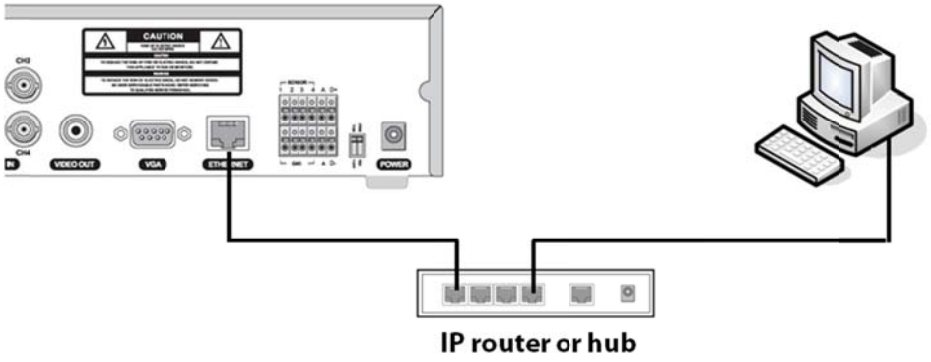
LAN Connection – Using a crossover cable without a switching hub

Connect to the system directly using a crossover type network cable.



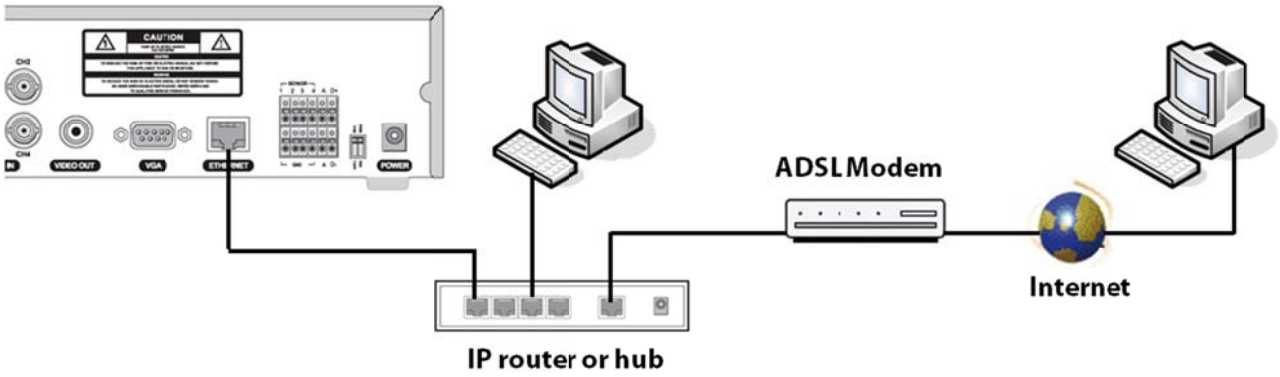
LAN Connection – Using a switching hub

Connect to the system using a hub (switching hub) and an Ethernet cable (10BASE-T/100BASE-TX CAT 5 LAN cable).



Internet (ADSL) Connection

Connect to the system using a router or ADSL modem and an Ethernet cable (10BASE-T/100BASE-TX CAT 5 LAN cable).



Smartphone Access

When your DVR is configured for access across the Internet, you can remotely monitor and control you video security system over a Wi-Fi or 3G connection using the free smartphone app Blackhawk. This app features:

- View from 1 to 16 cameras
- View images in portrait or landscape single channel)
- Monitor multiple locations
- 3G/Wi-Fi compatible

For more information, and to download and install the app, go to:

- **Apple® iPhone®, iPod touch®,** or **iPad®:** http://itunes.apple.com/app/blackhawk-for-iphone/id422091119?
- **Android™ phones**: http://www.androidzoom.com/android_applications/tools/blackhawk_tlcv.html